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EXAMINER

NGUYEN, PHUNG

ART UNIT

PAPER NUMBER

2632

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/765,910

Applicant(s)

KLINE, PAUL A.

Examiner

Phung T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-7,10-16,18-22 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7,10-16,18-22 and 24-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This Office action is in response to the amendment filed 03/13/03.

Claims 8, 9, 17, and 23 have been cancelled.

Claims 2, 7, 10, 12, 24, 28, and 30 have been amended.

Claim 31 has been added.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 3, 5-7, 10, 13, 14, 22, and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Komoda et al. (U.S. Pat. 4,599,598).

**Regarding claim 2:** Komoda et al. disclose a data transmission system utilizing power line comprising a low pass filter 512 (figure 19, col. 16, lines 33-35) coupled to the branch line adjacent to the power meter; and a power line communications repeater connected to the branch line across the low pass filter (col. 16, lines 35-40).

**Regarding claim 3:** Komoda et al. disclose the low pass filter is disposed on the subscriber side 2 of the power line as seen in figure 3, col. 5, lines 15-19.

**Regarding claim 5:** Komoda et al. disclose the low pass filter is disposed on the transformer side of the power meter (col.5, lines 15-19).

**Regarding claim 6:** Refer to claim 4 above.

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**Regarding claim 7:** All the claim subject matter is already discussed in respect to claims 2 and 4 above.

**Regarding claim 10:** All the claim subject matter is already discussed in respect to claim 2 above.

**Regarding claim 13:** Komoda et al. disclose the first filter is coupled to the electrical power line on the subscriber side 2 of an electrical power line (figure 3, col. 5, lines 15-19).

**Regarding claim 14:** Komoda et al. disclose the first filter is coupled to the electrical power line on the electrical transformer side of an electrical power line (figure 3, col. 5, lines 15-19).

**Regarding claim 22:** Komoda et al. disclose a second filter coupled of the electrical power lines (figures 11 and 19, col.12, lines 1-4).

**Regarding claim 24:** Komoda et al. disclose another power line communications repeater (figures 11 and 19, col.12, lines 1-33).

**Regarding claim 25:** Komoda et al. disclose the first filter conductively connected to the electrical power line (figure 19, col. 16, lines 12-19).

**Regarding claim 26:** Komoda et al. disclose the first filter is inductively coupled to the electrical power line (col. 16, lines 21-27).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. (U.S. Pat. 4,599,598).

**Regarding claim 4:** Komaoda et al. disclose the power line communication repeater is connected across the low pass filter (col. 16, lines 12-54) but do not show the power line communication is connected across both the low pass filter and the power meter as claimed. However, whether a skilled artisan connects the power line communication repeater across the low pass filter or both the low pass filter and the power meter would have been an obvious design choice because they are functional equivalent for the quality and strength of a signal decays over distance.

**Regarding claim 15:** Refer to claim 4 above.

6. Claims 11, 12, 16, 18-21, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. in view of Colton et al (U.S. Pat. 6,239,722).

**Regarding claim 11:** Komoda et al. disclose the power line communication repeater 5 (figure 3, col. 5, lines 15-19) but do not disclose the power line communication is a router. However, the use of router is old and well known in the art as taught by Colton et al. (col. 6, lines 19-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the conventional router of Colton et al. in the system of Komoda et al. because they both teach a data transmission system utilizing a power line. It is seen that using the router of Colton et al. would increase the flexibility of the system of Komoda et al. by providing more functionality than repeaters.

**Regarding claim 12:** Colton et al. disclose a router (col. 6, lines 19-22) but do not disclose the repeater preventing a first subscriber from accessing data associated with a second subscriber as claimed. Since the router performs routing information, it would be obvious to recognize that the router of Colton et al. can prevent a first subscriber from accessing data associated with a second subscriber.

**Regarding claim 16:** Komaoda et al. disclose the power line communication repeater is connected across the low pass filter (col. 16, lines 12-54) but the combination does not show the power line communication is connected across both the low pass filter and the power meter as claimed. However, whether a skilled artisan connects the power line communication repeater across the low pass filter or both the low pass filter and the power meter would have been an obvious design choice because they are functional equivalent for the quality and strength of a signal decays over distance.

**Regarding claim 18:** Komoda et al. disclose the power line communication repeater 5 (col. 5, lines 15-19) but do not disclose a data network in communication with the power line communication repeater as claimed. However, Colton et al. disclose a local area network and WAN (col. 1, lines 47-54) for transmitting data associating with the plurality of metering devices. Therefore, it would have been obvious to the skilled artisan to combine the teachings of Colton et al. and Komoda et al. because sending message to and work jointly with others on the network would be an advantage.

**Regarding claim 19:** Colton et al. disclose the data network is a wide area network (col. 1, lines 47-54).

**Regarding claim 20:** Colton et al. disclose the data network is in communication with the electrical power line on the transformer side of the filter (col. 3, lines 18-51).

**Regarding claim 21:** Colton et al. disclose the router is in communication with a plurality of subscribers (col. 6, lines 19-26).

**Regarding claim 28:** Komoda et al. disclose a first low pass filter coupled to the first branch line (col. 12, lines 1-33). Plus the consideration of claim 11 above.

**Regarding claim 29:** Komoda et al. disclose a second filter coupled of the electrical power lines (figures 11 and 19, col.12, lines 1-4). Plus the consideration of claim 11 above.

**Regarding claim 30:** Komoda et al. disclose a low pass filter 512 (figure 19, col. 16, lines 33-35) coupled to the branch line on the electric power distribution transformer side; and the router communicatively coupled to the branch line at a node to control data communications is already discussed in respect to claim 11 above.

**Regarding claim 31:** Komoda et al. disclose a power line communications repeater connected to the branch line across the low pass filter (figure 19, col. 16, lines 12-40); Colton et al. disclose a plurality of metering devices (col. 1, lines 47-54). The combination does not show the power line communications repeater coupled to the power line on each side of the electric power meter, such limitation is just a matter of design choice to one of ordinary skill in the art. The placement of the power line communications repeater presents no new or unexpected results, so long as the repeater successfully provide a path for data. Therefore, it would have been obvious to place the power line communications repeater on each side of the electric power meter or the filter.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. in view of Weikel (U.S. Pat. 4,652,855).

**Regarding claim 27:** Komoda et al. fail to teach the first filter is a toroid through which the electrical power line passes. However, Weikel discloses a portable remote meter reading apparatus comprising a toroid-shaped ferrite core 72 (col. 11, lines 5-18) for passing the electric power. Therefore, it would have been obvious to the skilled artisan to employ the teaching of Weikel into the system of Komoda et al. in order to reduce cost which is an advantage.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Fong [U.S. Pat. 3,973,087] discloses a signal repeater for power line access data system.

b. Whyte et al. [U.S. Pat. 3,967,264] disclose a distribution network power line communication system including addressable interrogation and response repeater.

c. Paull [U.S. Pat. 5,870,016] discloses an utility meter remote automatic reading system.

d. Schurig [U.S. Pat. 5,818,821] discloses an universal LAN power line carrier repeater system and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 703-308-6252. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 703-308-6730. The fax numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Examiner: Phung Nguyen

Date: May 21, 2003

  
DANIEL J. WU  
PRIMARY EXAMINER

6/01/03